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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,754	09/18/2003	Yufeng Li	2002P15652US01	4113

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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
TERMANINI, SAMIR	
ART UNIT	PAPER NUMBER
2178	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/664,754	LI, YUFENG	
	Examiner	Art Unit	
	Samir Termanini	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

BACKGROUND

1. This action is responsive to the following communications: Applicant's amendment filed on 10/20/2006.

2. Claims 1-20 are pending. The Applicant amended claims 1, 10-11, and 19-20 (on 10/6/2006). Amended claims: 1, 19, and 20 are in independent form.

3. Attention is directed to the second paragraph of the REMARKS section of Applicant's amendment which states, *inter alia*, "...the drawings have been amended...." However, the amendment fails to amend the drawings.

4. Applicant has amended the specification in response to the objection cited by the Examiner in paragraph 1 of the Office Action mail dated 7/28/2006 (hereinafter "Previous Office Action") with regard to minor typographical errors concerning the filing date of applications to which priority is claimed (60/413,010 and 60/412,917). Applicant's amendment is in compliance with CFR 1.78, and therefore, in view of the amendment, this objection is withdrawn.

5. The Objection to the Drawings has been withdrawn.

6. The Objection to the Abstract has been withdrawn.

7. The Objection to the capitalization of trademarks has been withdrawn.

8. The 35 U.S.C. §101 Statutory Subject Matter Rejections of claim 1-18 are withdrawn in view of the amendment.

9. The Provisional Obviousness-Type Double Patenting Rejections of claims 1, 19, and 20 over claims 1, 33, and 34 of copending Application No. 10/666,227, in paragraphs 6 and 7 of the Previous Office Action been withdrawn.

10. The Rejection of claims 1-20, made under 35 U.S.C. §102 35 and U.S.C. §103 and in paragraphs 10-11, and 12-13 of the Previous Office Action are withdrawn because applicant's amendment necessitated new grounds of rejection.

CLAIM REJECTIONS - 35 U.S.C. §102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

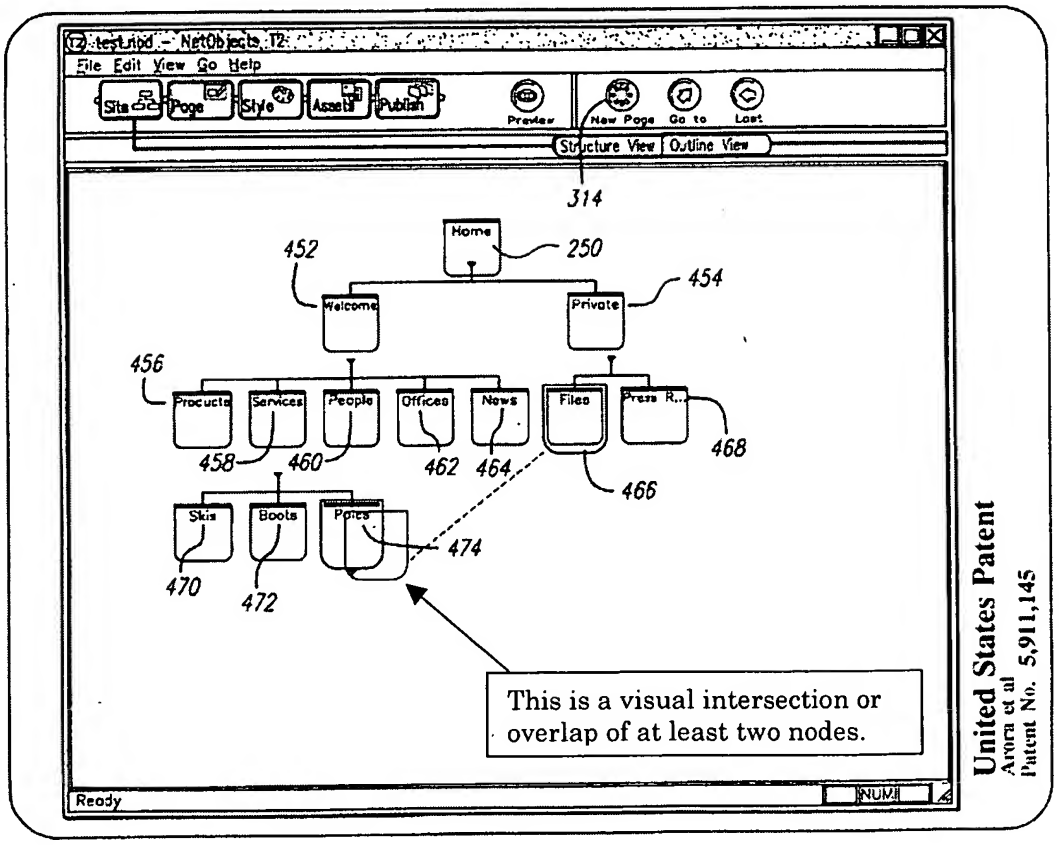
12. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Arora et al.* (US Pat. No. 5,911,145).

As to independent claim 1, *Arora et al.* anticipate a method for representing HMI user screens ("web pages" col. 2, lines 18-21) comprising the activities of: via an information device ("computer system 100" col. 5, lines 12-25): obtaining an organization ("display elements" col. 2, lines 23-25) and a hierarchy of collection comprising a plurality of HMI screen nodes ("...hierarchy [and] layout..." col. 2, line 36); automatically determining an arrangement of the collection ("...automatically creating in the memory a layout data structure for the new page..." col. 2, lines 52-58).

Specifically addressing the newly amended limitation of claim 1 (i.e. "...responsive to a detected collision between a parent node of said hierarchy of said collection and another

node, automatically adjusting a position of said parent node..."), *Arora et al.* teach "...when the user drags a first icon on top of a second icon, the first icon is displayed with an arrow indicating where the second page icon will connect to the first page icon. Thus, in FIG. 4, if the user drops page icon 466 on top of page icon 474 (and slightly below icon 474), page icon 466 will be displayed as "child" of page icon 474 (and removed from its previous display location)." (col. 6, line 58 -to- col. 7, line 6)(emphasis added). An annotated reproduction of Fig. 4, illustrating the collision is provided below.

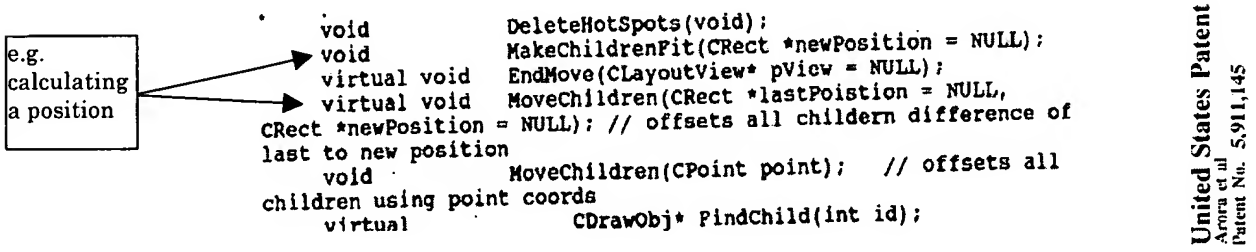
FIG. 4



Applicant has provided an deliberate and explicit definition for a term: "collision" in the specification ("collision--a visual intersection or overlap of at least two nodes." para. [0038]) and that definition controls interpretation of the term as it is used in the claim.

Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999). Notwithstanding that Fig. 4 above does not show node 466 to be a parent node, *Arora et al.* explicitly teach it being a parent node, i.e. having children ("in steps 1120 through 1126, the page icon/node is moved to a new position in the site hierarchy. Step 1120 removes the selected node (and all its children) from its old display position. Step 1122 adds the selected page icon/node (and all its children) to its new display position. Step 1124 changes one or more page objects in memory so that the page is correctly linked into its new position in the site hierarchy. " col. 8, lines 55-60)(emphasis added). Alternatively, *Arora et al.* further explicitly teach the converse situation where the destination node is a parent where its position is being updated (responsive to a detected collision) to accommodate for a sibling node ("If the selected node already has an existing child then, in step 910, the new node is made a next sibling of the existing child node." col. 8, lines 6-9)(emphasis added); and rendering the collection according to the arrangement ("..draw objects automatically generated by structure editor software 120. The draw objects are generated when a page layout is modified." col. 8, lines 7-8).

As to dependent claims 2 and 4, *Arora et al.* further disclose the method of claim 1, addressed above, further comprising calculating a position of a leaf and a parent, as illustrated in the listings appearing in col. 17 and col. 18 (only a portion is depicted).



Again, calculating a position of a parent node is explicitly taught, i.e. at step 1120 of figure 11, where the position of the node being calculated - has children.

As to dependent **claim 3**, *Arora et al.* further disclose the method claim 1, further comprising calculating a position of a visible leaf (e.g. fig. 4 shows, *inter alia*, node 470, 472, 474, 466, and 468 to be leaf nodes; *see also* figs. 17-18, and 20-21).

As to dependent **claims 5-7**, *Arora et al.* further disclose the method of claim 1, further comprising updating a position of a parent upon detecting a collision ("...when the user drags a first icon on top of a second icon [collision], the first icon is displayed with an arrow indicating where the second page icon will connect to the first page icon. Thus, in FIG. 4, if the user drops page icon 466 on top of page icon 474 [collision](and slightly below icon 474), page icon 466 will be displayed as "child" of page icon 474 (and removed from its previous display location." col. 6, line 58 -to- col. 7, line 6)(emphasis added). Also see discussion of claim 1 above.

As to dependent **claims 8 and 9**, *Arora et al.* teaches both: (1) recursively calculating a position of each of the plurality of HMI screen nodes ("the tree of page objects is traversed in a recursive, depth first manner in a manner known to persons of ordinary skill in the art." col. , lines 33-35), and updating a position of a parent upon detecting a collision (as discussed in the treatment of claim 1).

As to dependent **claims 10 and 11**, *Arora et al.* further teaches the method of claim 1, further comprising changing a visibility of a node and children of the node. As *Arora et al.* show in Fig 15(b), hiding is accomplished when "The user collapses a branch by selecting a page icon and selecting "Collapse" from the pull-down view menu. All nodes below the selected node are removed from the display and the selected node is displayed in a predetermined format indicating a collapsed branch." (col. 9, lines 45-49;). Showing is accomplished when , "The user expands a branch by selecting a page icon and selecting

"Expand" from the pull-down view menu. The nodes below the selected node in the site hierarchy are displayed and the Collapsed indicator is removed from the selected node." (col. 9, lines 54-58).

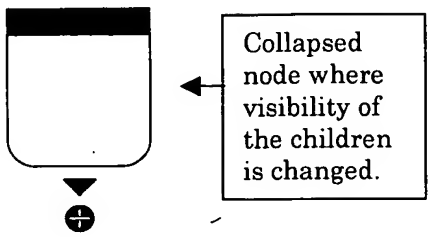


FIG. 15(b)

United States Patent
Arora et al
Patent No. 5,911,145

As to dependent **claims 12 and 13**, *Arora et al.* further disclose the method of claim 1, wherein the arrangement is a vertical tree arrangement, as illustrated in figure 21.

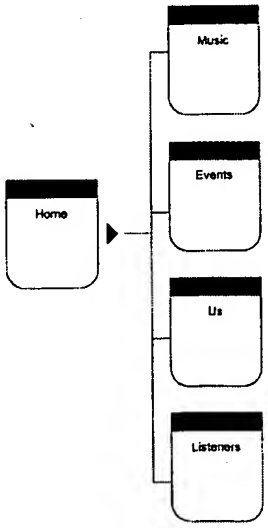


FIG. 21

United States Patent
Arora et al
Patent No. 5,911,145

As to dependent **claim 14**, *Arora et al.* further disclose the method of claim 1, wherein the arrangement is a horizontal tree arrangement, as illustrated in figure 21.

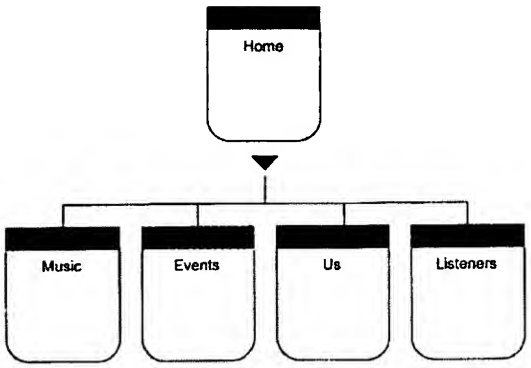
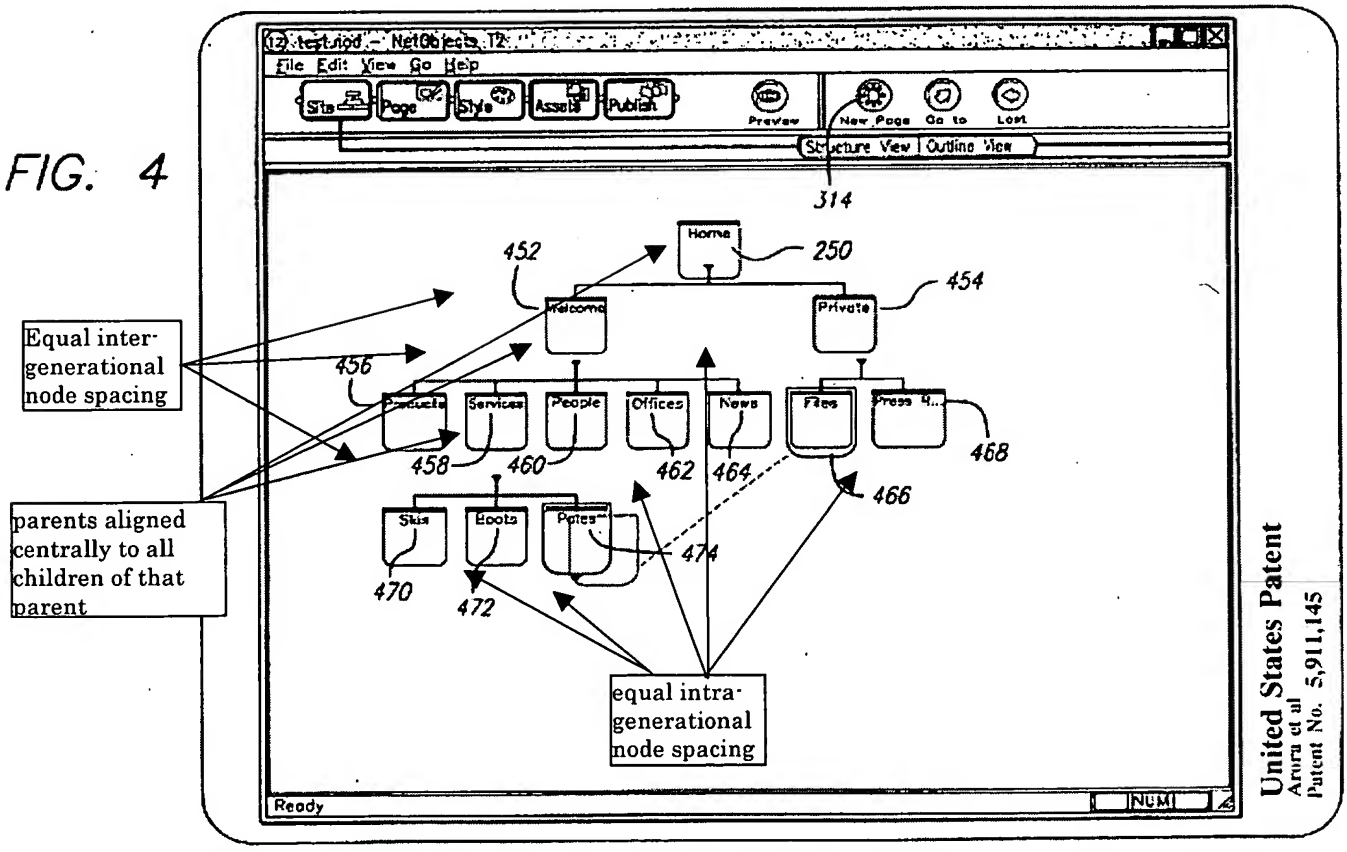


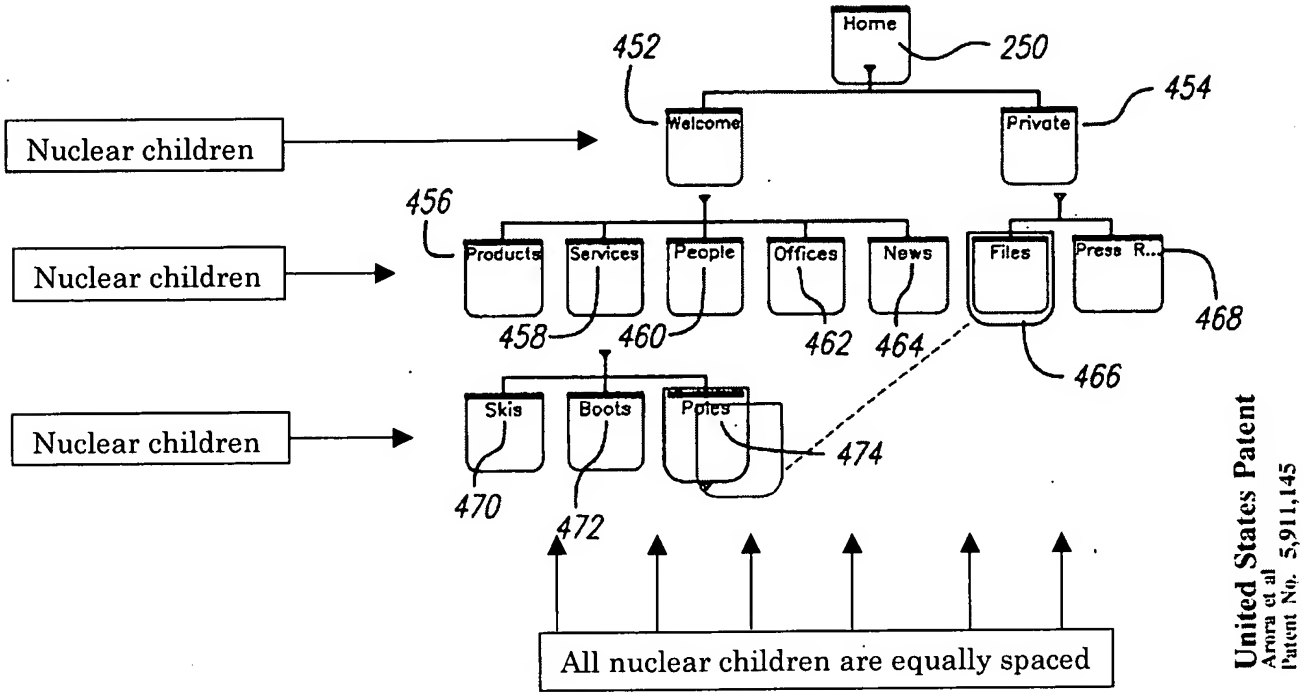
FIG. 20

As to dependent claims 15-17, *Arora et al.* further disclose the method of claim 1, wherein the arrangement is rendered with equal inter-generational node spacing, equal intra-generational node spacing, and each parent aligned centrally to all children of that parent - as illustrated in figure 4.

FIG. 4



As to dependent **claim 18**, *Arora et al.* further disclose the method of claim 1, wherein the arrangement is rendered with all nuclear children separated equally, as illustrated in figure 4.



As to independent **claim 19**, this claim differs from claim 1 only in that it is directed to a product defined by the process of claim 1. *Arora et al.* further disclose that:

> "Computer 100 also includes an input device 161, such as a floppy disk drive or CD ROM reader, that reads computer instructions and data stored on computer readable medium 162, such as a floppy disk or a CD ROM. These computer instructions are the instructions of e.g., structure editor software 120. Memory 104 includes structure editor software 120, page objects, layout objects, and draw objects 130, HTML 140, and image files 140" (col. 5, lines 12-25)

Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to independent **claim 20**, this claim differs from claim 1 only in that it is directed to an apparatus for carrying out the process of claim 1. *Arora et al.* further disclose the process of claim 1, addressed above, being carried out on a:

> "[C]omputer system 100 in accordance with a preferred embodiment of the present invention. Computer system 100 includes a CPU 102; a memory 104; input/output lines 105; an input device 150, such as a keyboard or mouse; and a display device 160, such as a display terminal." (col. 5, lines 12-17).

Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

RESPONSE TO ARGUMENTS

13. The Objection to the drawings has been withdrawn. Applicant's arguments, *see* pp. 7, lines 4-13, filed on 10/20/2006, with respect to conventional elements in the Drawings have been fully considered and are persuasive.

In response to Section I of Applicant's REMARKS, the first sentence of 37 CFR 1.84(a) states, inter alia, that "The drawing must show every feature of the invention specified in the claims." The second sentence of 37 CFR 1.84(a) provides the exception with regard to conventional features disclosed in the specification and claims.

Applicant's response to the drawing objection with respect to elements 1110, 1120, 1130, 1140, 1150, 1160, 1170, 1180, 6200, 6220, 6222, 6240, 6226, 6228, and 6100 arguing "the present Office Action presents no evidence that the elements alleged as not shown in 'structural detail' are 'essential from a proper understanding of the disclosed invention,'" is immaterial under 37 CFR 1.83(a) in all cases except those where features of the invention specified in the claims are conventional.

Therefore, Applicant's position with regard to the objection, can only be either of: (1) that the aforementioned elements are not features of the invention specified in the claims

("Applicant respectfully submits that the drawings as originally submitted shows 'every feature of the invention specified in the claims'..., pp. 7, lines 4-10); or (2) that the aforementioned elements are both conventional and not essential for a proper understanding of the invention and henceforth need not be illustrated ("...conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention", pp. 7, lines 4-10).

The Examiner notes that, the Applicant, having only argued that the "Office Action presents no evidence that the elements alleged as not shown in 'structural detail' are 'essential from a proper understanding of the disclosed invention'" (pp. 9, lines 4-10) intended for the elements 1110, 1120, 1130, 1140, 1150, 1160, 1170, 1180, 6200, 6220, 6222, 6240, 6226, 6228, and 6100 to be conventional. Accordingly, under the second sentence of 37 CFR 1.84(a), elements in the drawings that are both conventional and not essential for a proper understanding of the invention are permitted as labeled representations.

14. The Objection to Abstract has been withdrawn.

Applicant's arguments, In response to Section II of Applicant's REMARKS, see pp. 7, lines 23-24, filed on 10/20/2006, with respect to the abstract have been fully considered and are persuasive. Further, notwithstanding current patent practice guidelines for abstracts detailed under MPEP § 608.01(b), 37 CFR 1.72(b) states, *inter alia*, "The purpose of the abstract is to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure." Additionally, Applicant is correct in that there is no requirement under 37 CFR 1.72(b) for the Applicant to be helpful to the USPTO and the public by avoiding the use of implied phrases.

15. The Objection concerning trademark usage has been withdrawn.

In response to Section III of Applicant's REMARKS, see pp. 8, lines 5-12, filed 10/20/2006, with respect to trademark usage have been fully considered and are persuasive.

16. The 35 U.S.C. §101 Statutory Subject Matter Rejection of claims 1-18, in paragraphs 8 and 9 of the Previous Office Action are withdrawn in view of the amendment.

In response to Section IV of Applicant's REMARKS, see pp. 8 lines 14-17, filed 10/20/2006, directed to the Rejections under U.S.C. §101 have been fully considered and are persuasive

17. The Provisional Obviousness-Type Double Patenting Rejections of claims 1, 33, and 34 over claims 1, 33, and 34 of copending application no. 10/666,227, are withdrawn.

In response to Section V of Applicant's REMARKS, see pp. 8, line 6, filed 10/20/2006, with respect to the Provisional Obviousness-Type Double Patenting Rejections of claims 1, 33, and 34 in paragraphs 6 and 7 of the Previous Office Action, receipt is acknowledged of the terminal disclaimer filed on 10/20/2006 to obviate a provisional double patenting over pending application 10/666,227, a copy of which has been placed in the file.

18. The Rejection of claims 1-20, made under 35 U.S.C. §102 35 and U.S.C. §103 and in paragraphs 10-11, and 12-13 of the Previous Office Action are withdrawn because applicant's amendment necessitated new grounds of rejection.

In response to Sections VI & VII of Applicant's REMARKS, see pp. 9-15, filed 10/20/2006, with respect to the rejection of claims 1-20 under *Coburn* have been fully considered, however, upon further consideration, a new grounds of rejection is made in view of a different interpretation of a previously applied reference (*Arora et al.*, US Pat. No. 5,911,145) as addressed in detail above.

CONCLUSION

19. Although not relied upon, the following prior art is made of record because it considered pertinent to applicant's disclosure:

[1] *DeRemer et al.* (U.S. Patent No. 6,975,914 B2) for teaching methods and an apparatus for workflow definition and processing which permit definition of hierarchically enumerated data types and for definition of "plans" to collect, e.g., for storage, data such as the aforementioned hierarchical data types.

[2] *Dardinski et al.* (U.S. Patent No. 6,754,885 B1) for teaching an apparatus for configuring process, environmental, industrial and other control systems employing "appearance" objects (or other data and/or programming constructs) defining the appearance of configurable system components in graphical editors or other views in which the components may be depicted where appearance objects provide (or reference) icons or representations indicating how the configurable objects are to be depicted in a configuration editor.

[3] *Wewalaarachchi et al.* (U.S. Patent No. 6,067,477 A) for teaching a system and method for the creation and operation of real-time enterprise-wide, personalize supervisory and control data acquisition systems using drag-and drop operations.

[4] *Kato* (U.S. Patent No. 6,054986 A) for teaching a method for visual programming functional objects in a visual program that graphically defines the flow of data between functional objects serving as functional components on the computer screen is so arranged that icons of functional objects are made out or edited.

[5] *Coburn et al.* (U.S. Patent No. 6,618,856 B2) for teaching a method used with a simulator and a controller for generating execution code and data structures for use by the controller and the simulator, including resource logic in a control assembly (CA).

[6] *Coburn et al.* (U.S. Patent No. 2002/0120921 A1) for teaching a method, apparatus and data construct set for generating simulation data structures which can be used by a modeling system to interface between a PLC and a movie module including importing the simulation information from the data constructs and populating the data structures.

[7] *Weinberg et al.* (U.S. Patent No. 6,144,962 A) for teaching a visual Web site analysis program, implemented as a collection of software components for facilitating the analysis and management of Web sites and Web site content with a dynamic page scan feature.

[8] *Leshem et al.* (U.S. Patent No. 5,870,559 A) for teaching a visual Web site analysis program for facilitating the analysis and management of Web sites and Web site content.

[9] *Brown et al.* (U.S. Patent No. 6,549,221 B1) for teaching presenting (e.g., displaying) a hierarchical structure including multiple elements and defining hierarchical relationships between the elements. The hierarchical structure may be embodied within an electronic document such as a Web document, an interactive application program, or a map divided into sections. Each element has a "presentation property" which may be a value or a function where a presentation property of each element represented by a node in a subtree is also presented, wherein the focus node is a root node of the subtree.

[10] *Choi* (U.S. Patent No. 6,684,264 B1) for teaching an apparatus and method for controlling a molding machine includes structure and function for a human machine interface control panel having structure to uniquely identify each users preferred configuration by providing all the operating functions of the human machine interface.

[11] *Theisen et al.* (U.S. Patent No. 6,259,458 B1) for teaching a method of generating a graphical representation of a hierarchical data structure to on a display unit, the hierarchical data structure with a first node having content items. A graphic tree representing the hierarchical data structure displayed, the graphic tree including a first graphic representation of the first node. A second graphic representation, associated with the first graphic representation, that provides a representation of a content item displayed on the display unit, the second graphic representation differing in appearance from the first graphic representation.

[12] *Elsbree et al.* (U.S. Patent No. 7,017,116 B2) for teaching a software development toolkit automates and eases the task of generating graphical human-machine interfaces that are interactive control modules or software necessary to control a process. A graphical human-machine interface is created on a computer using a first operating system.

[13] *Kodosky et al.* (U.S. Patent No. 4,914,568 A) for teaching a method for programming a computer system having a display console for displaying control images; and displaying on the screen at least one iteration-icon that references iteration control module for controlling multiple iterations of data flow, such that the at least one iteration-icon in the diagram indicates multiple iterations of the at least one first function in the course of a procedure.

[14] *Anderson et al.* (U.S. PG. Pub. 2003/0191608 A1) for teaching a data processing components associated with a logical level such that a data processing, component associated with logical level only accepts input from one or more components in a logically higher or lower logical level that conforms to an ontology related to the logical level with which the data processing.

[15] *Grau et al.* (U.S. Patent No. 6,067,093 A) for teaching a layout technique generating a compact connected graph of linked objects, where objects are generally organized as a hub-and-spoke arrangement to reduce the number of overlapping objects and crossing links.

[16] *Schuur* (U.S. Patent No. 5,606,654 A) for teaching a method for displaying a n-ary tree graph including symbols which may incorporate visual clues to indicate that said child nodes themselves have child nodes (i.e. grandchild nodes) which cannot be displayed and visual clues to indicate that said child nodes have siblings which cannot be displayed.

[17] *Tatsumi et al.* (U.S. Patent No. 5,432,897 A) for teaching a method and an apparatus for editing displayed tree structures allowing movement and connection of a moving object in the tree structure to an aimed object with a reduced number of operational steps and displays the moving object on a display unit in order to facilitate the work of an operator who edits tree structures.

[18] *Arcuri et al.* (U.S. Patent No. 5,493,678 A) for teaching an editing capability in a structure editor providing selecting arbitrary nodes from within a tree, and using those arbitrarily selected groups of nodes in otherwise conventional editing operations such as move, copy, delete, and collect.

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samir Termanini whose telephone number is (571) 270-1047. The Examiner can normally be reached from 9 A.M. to 4 P.M., Monday through Friday (excluding alternating Fridays).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, *see* http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SUPERVISORY PATENT EXAMINER

Samir Termanini

Samir Termanini
Patent Examiner
Art Unit 2178